

- Protection of Special Nuclear Materials
- Long-Term Stewardship
- Environmental Monitoring
- Safeguards & Security
- Public Safety



Safeguards and Security



Public Safety

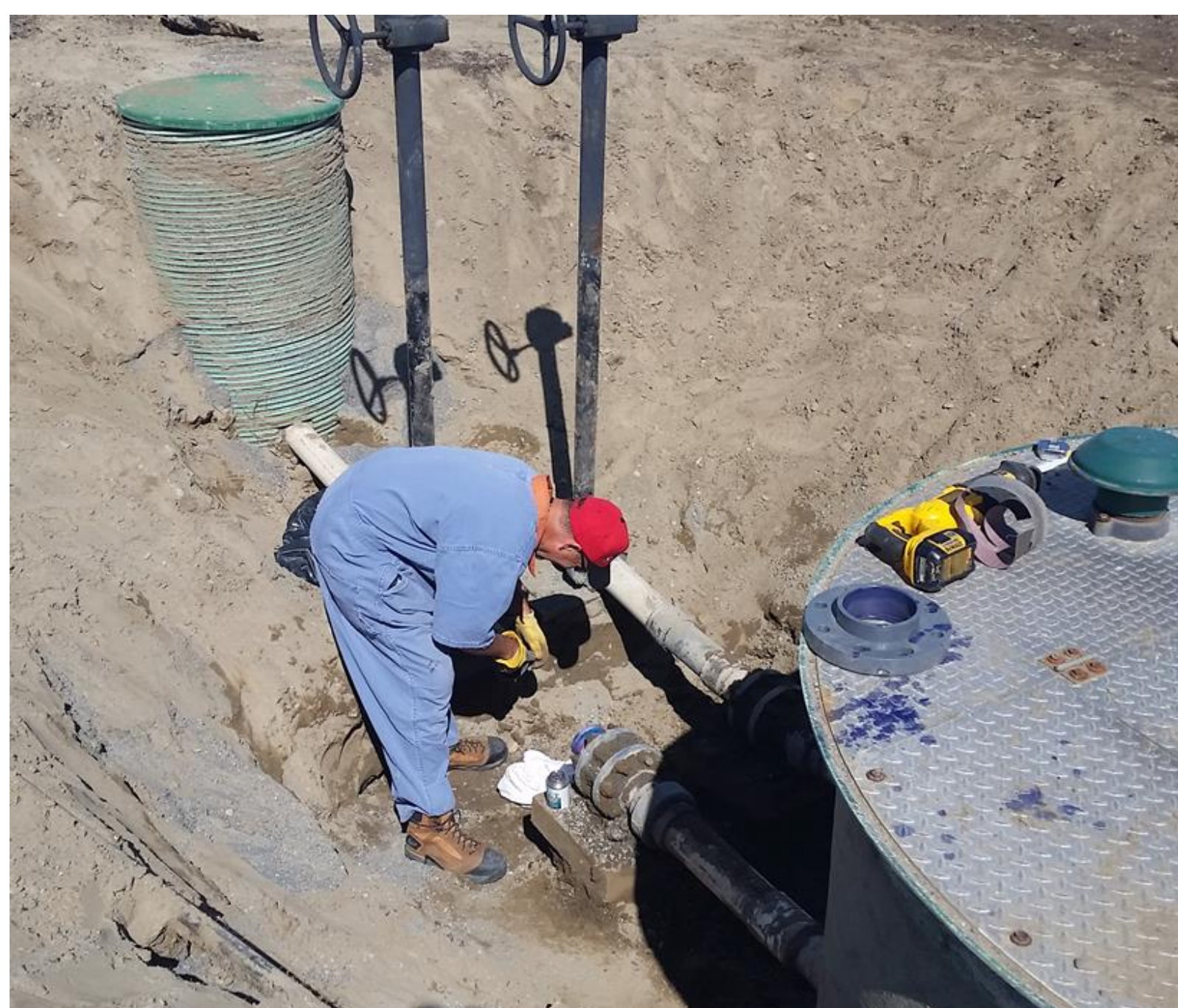


**Long-Term Stewardship /
Environmental Monitoring**

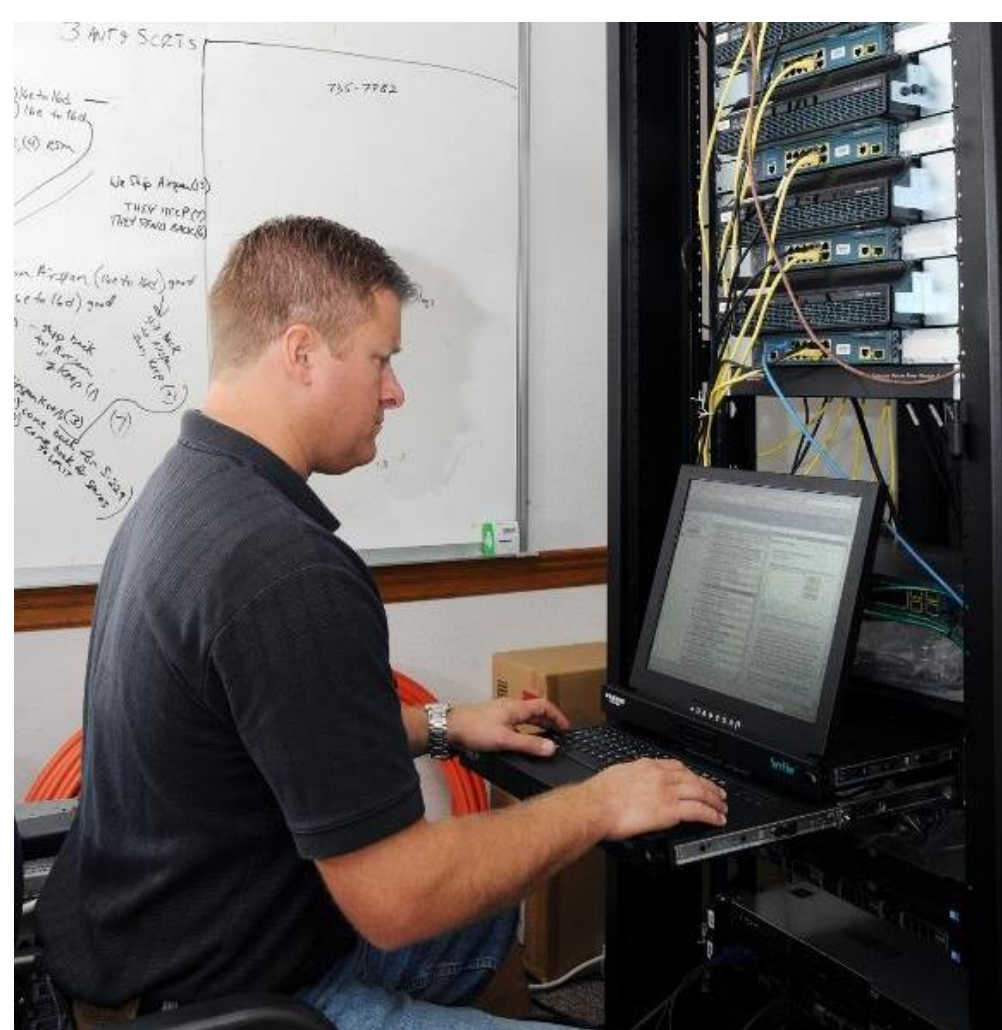


Resource and Asset Protection

- Telecommunications
- Power
- Water
- Sewer
- Roads



Sewer System



Telecommunications



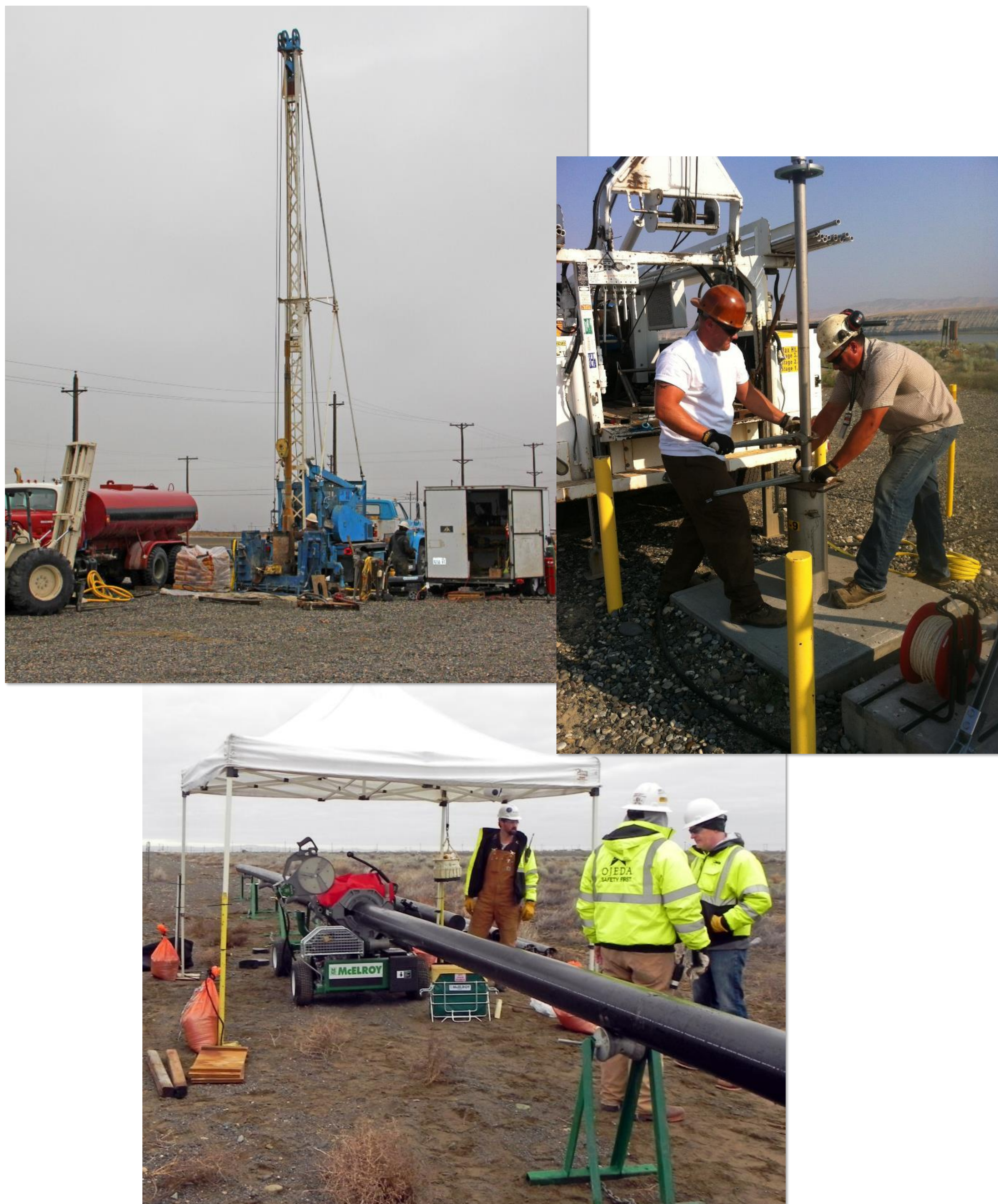
Roads



Fleet Services



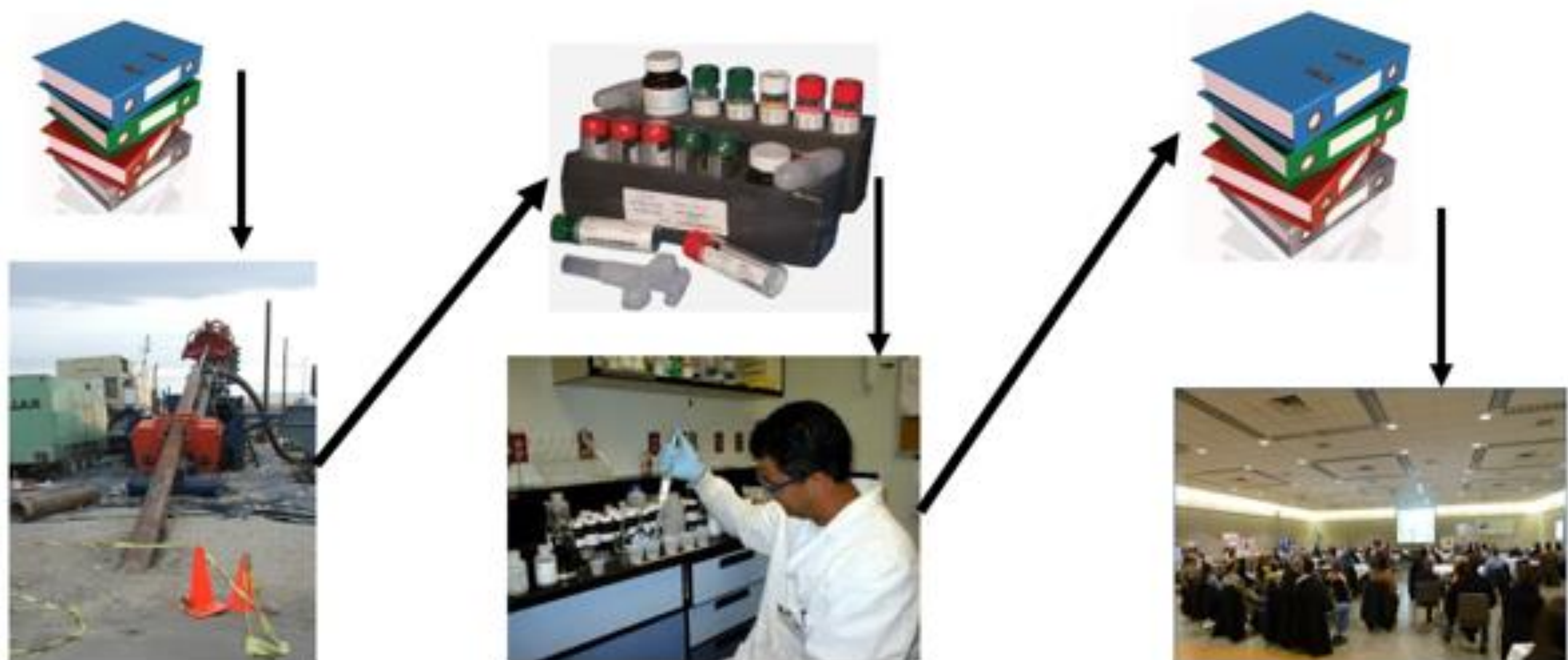
Power



- Treat 2.8 billion gallons
- Obtain final Record of Decision (RODs)



200 West Pump-and-Treat Facility



100 K Remediation and Reactor Interim Safe Storage



100K Waste Site Remediation



Worker performing asbestos abatement in the 165KE Powerhouse



Aerial view showing proximity of 100K Area to the Columbia River



Artist rendition of the reactor Safe Secure Enclosure

Cesium/Strontium Capsules to Dry Storage



Cesium/Strontium Capsules stored at WESF



Preparing WESF for Capsule Transfer Operations

Cask Storage System Terminology

Universal Capsule Sleeve (UCS)



The UCS is designed to hold 6 standard Cs/Sr capsules or 2 Type-W overpacks.

Dry Transfer System (DTS)



The DTS will be used to transfer the UCS from G Cell to the TSC in the truck port.

Transportable Storage Canister Basket



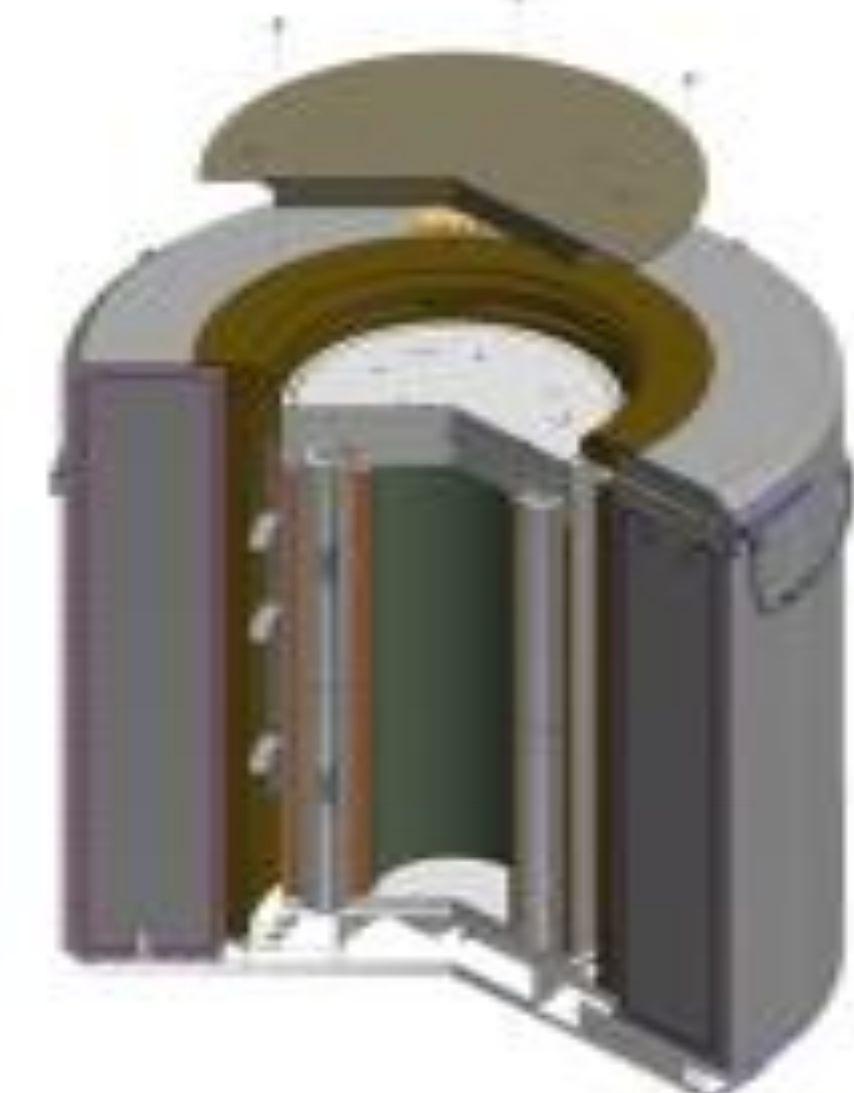
The TSC Basket will house 2 UCSs inside each of eleven openings.

Transportable Storage Canister (TSC)



The TSC is designed to fit inside the VCC for storage. The TSC houses the TSC basket.

Vertical Concrete Cask (VCC)



The VCC is the storage overpack that houses the TSC. Once loaded, the CSS will be transported to the Cask Storage Area with the Vertical Cask Transporter



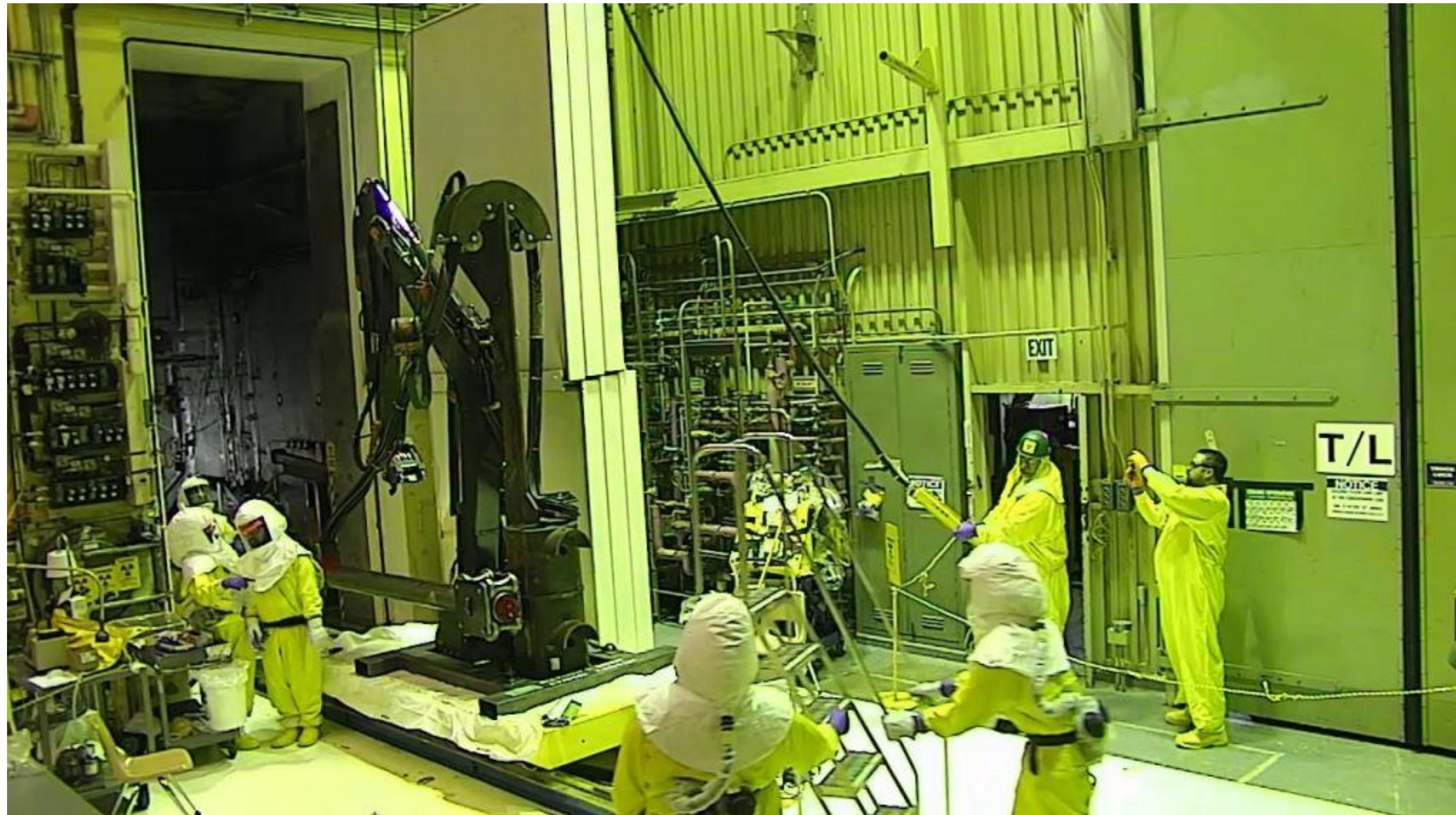
Mixed Low-Level waste disposal trenches and Central Waste Complex



Inspection of drums in storage at CWC awaiting treatment and/or disposal



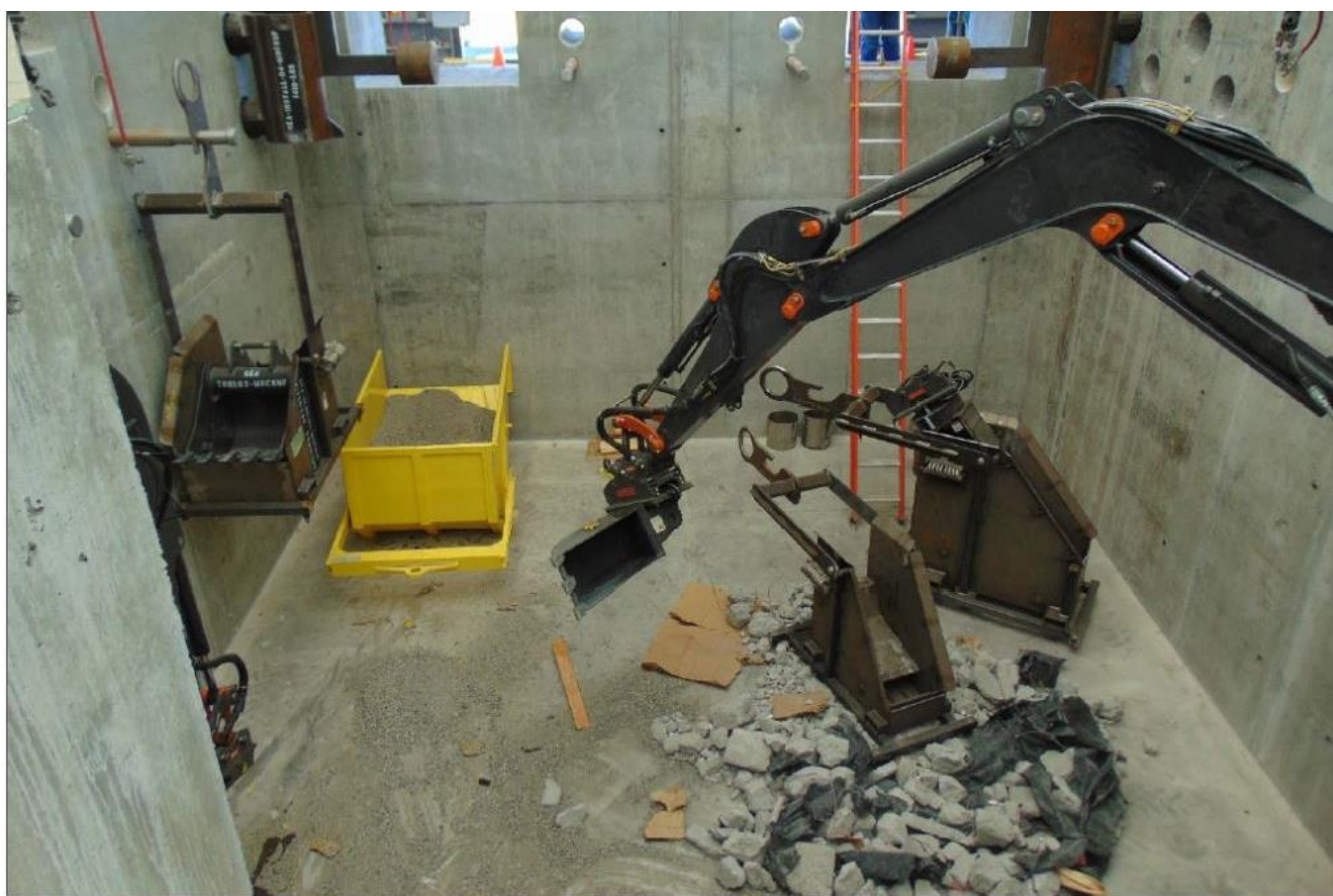
SWBs Ready for Loading into TRUPACT-II Casks



Moving the 1st B-Cell REA into the 324 Bldg. airlock



324 Building



Removing grout from cell floor in the mock-up

Before



Cutting the floor in the mock-up facility

Current



Before and Current pictures of debris in the B-Hot Cell



Before



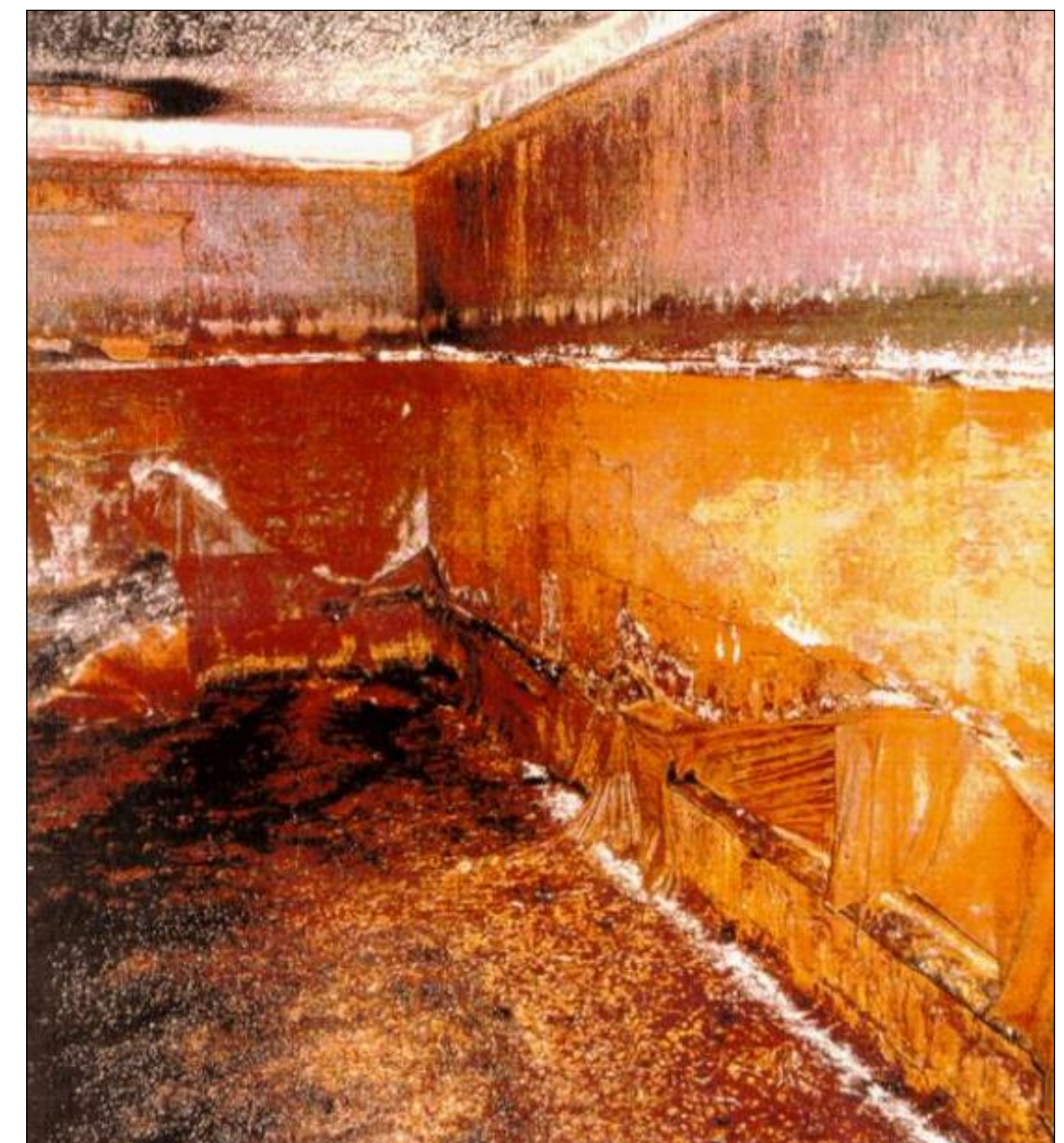
After

Before and After
pictures of REDOX
Legacy Waste removal

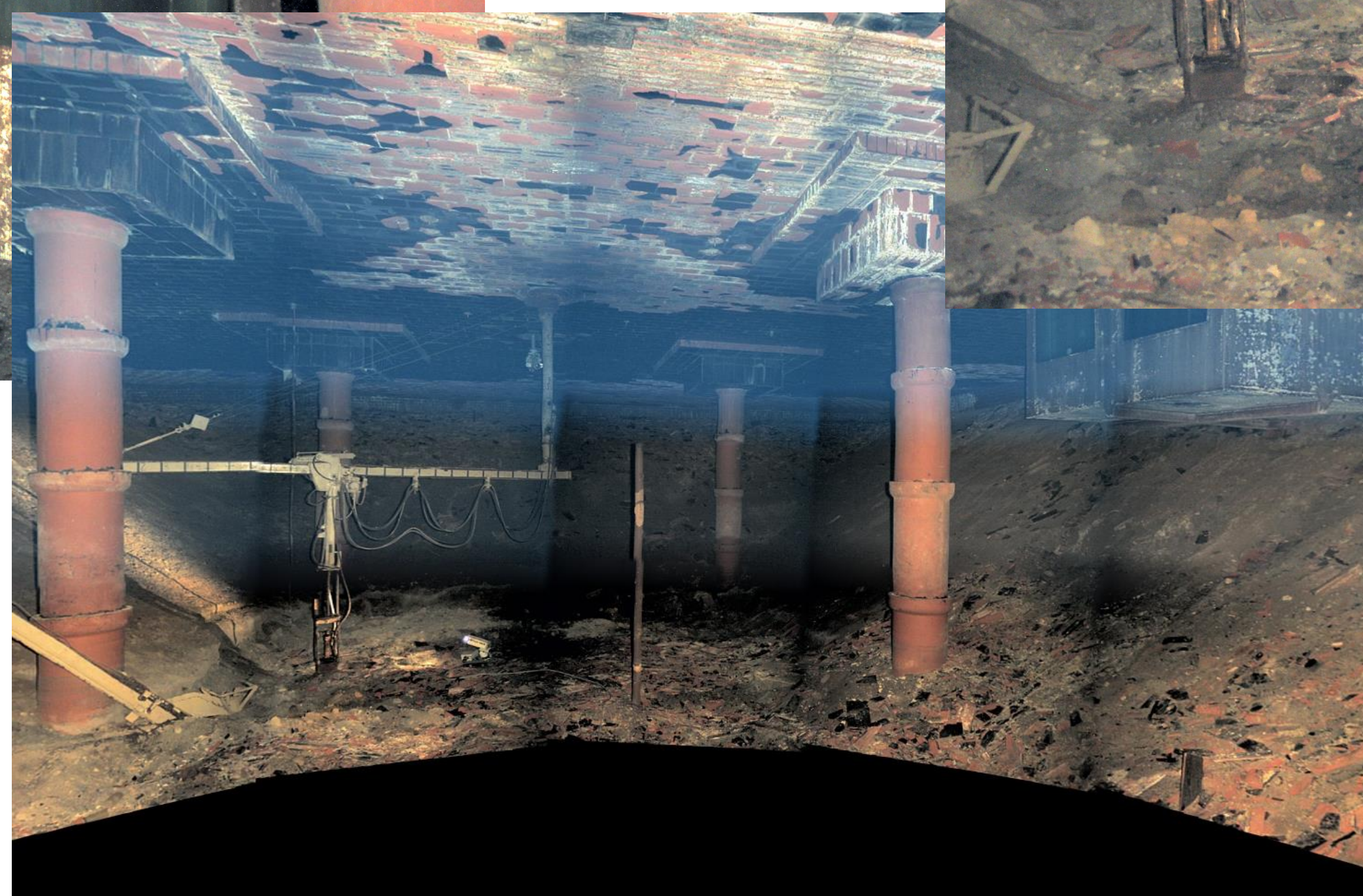
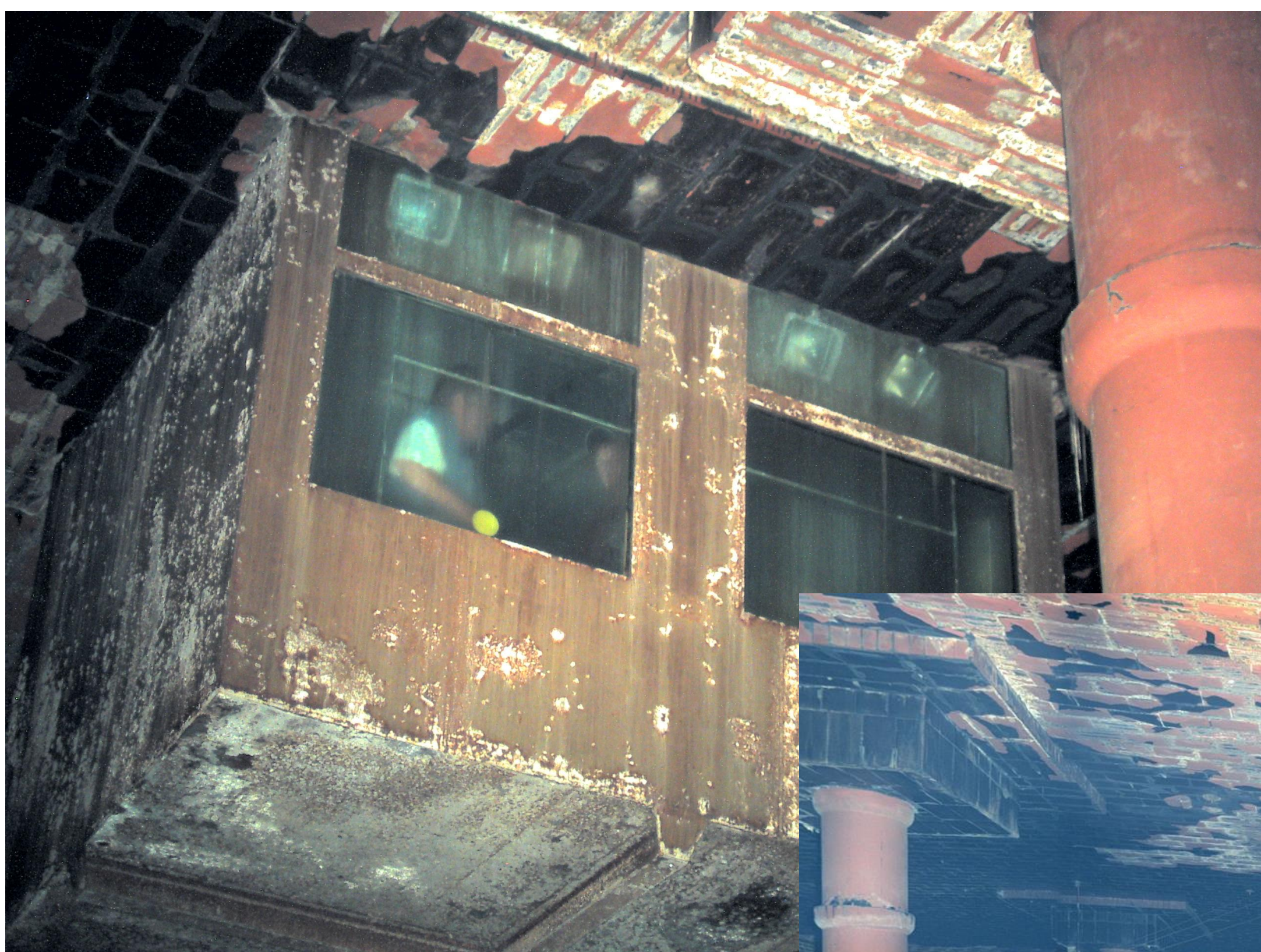


After

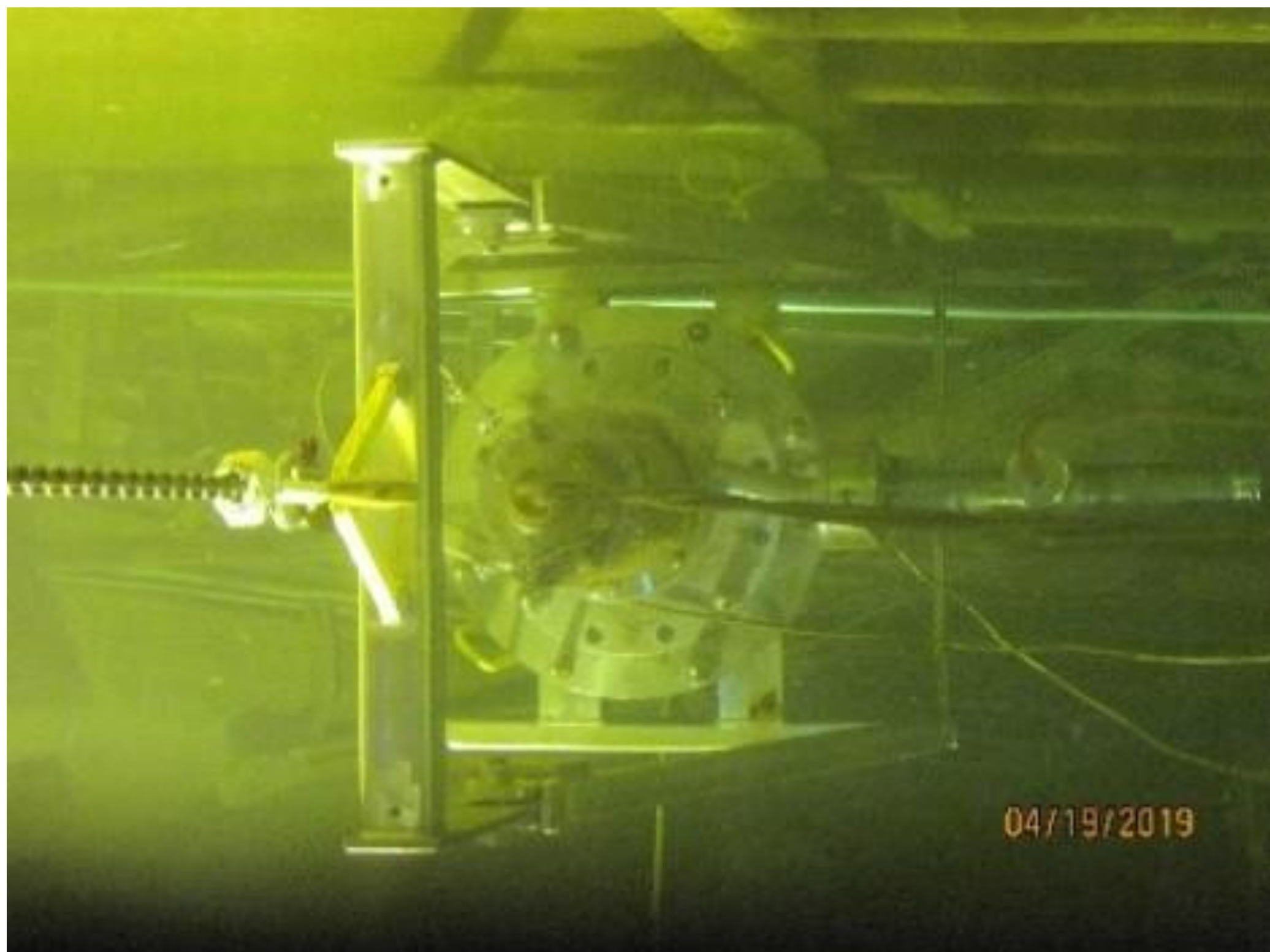
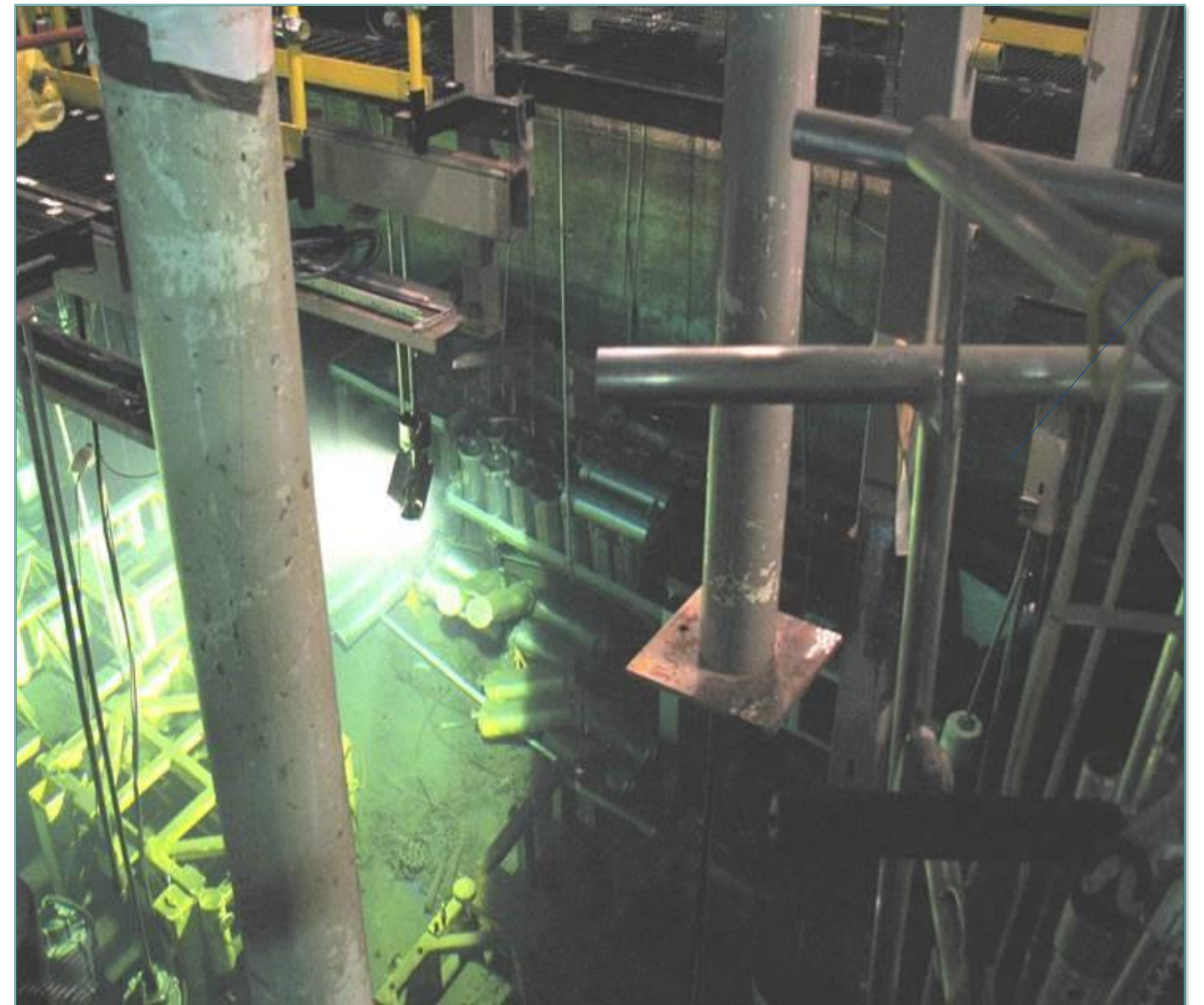
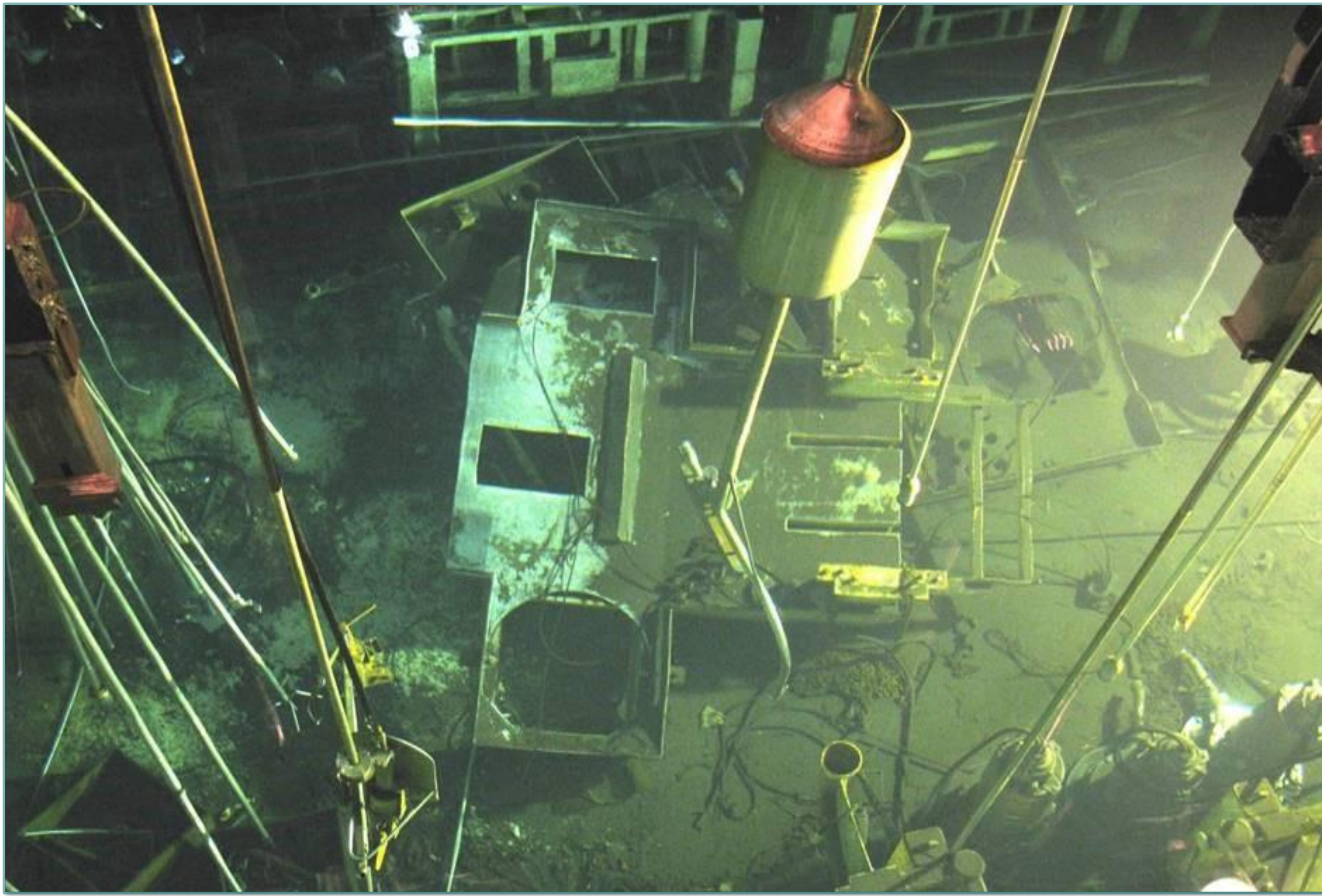
Aerial photo of PUREX with Tunnels



Interior of 241 Z-361 Tank



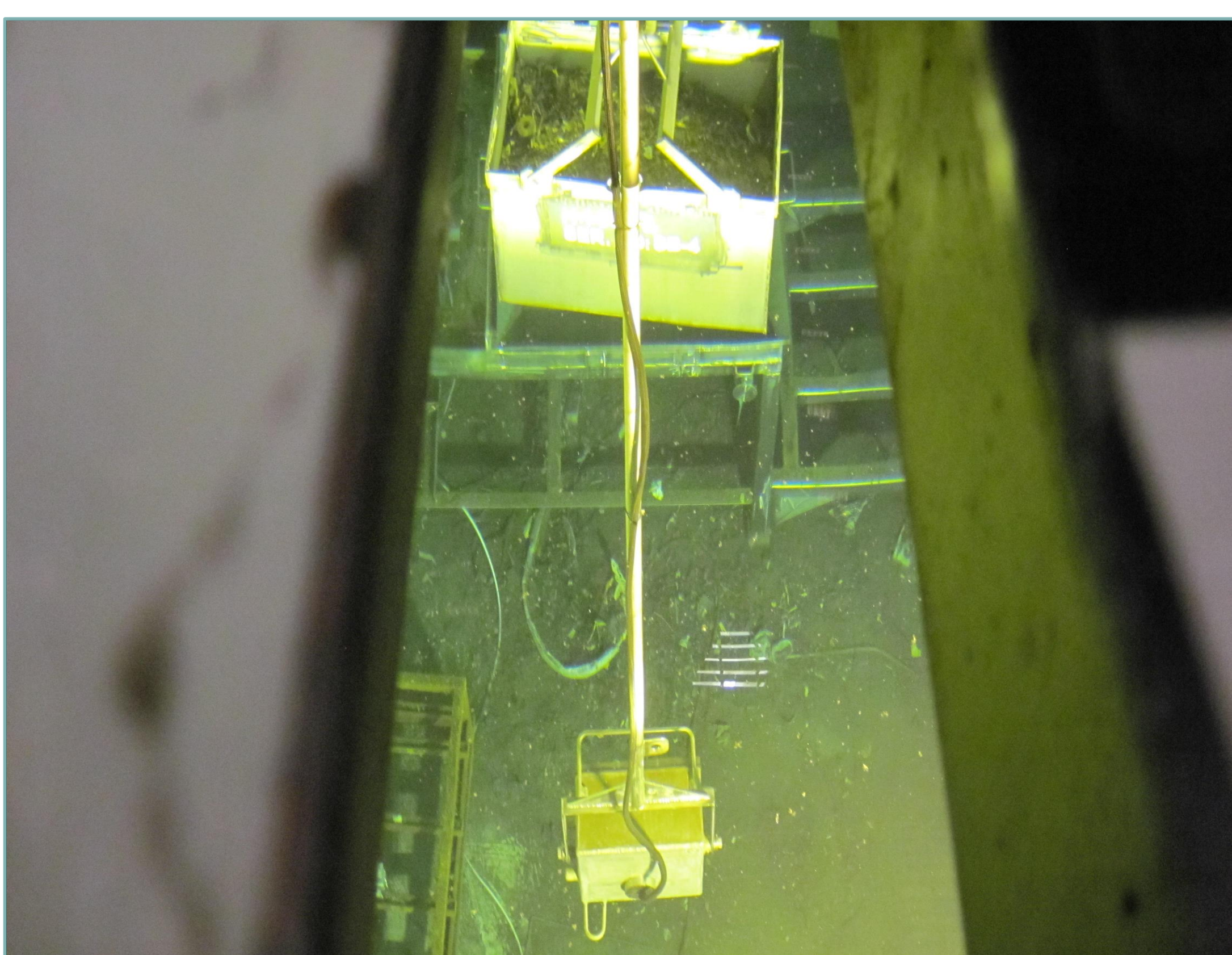
Interior of
216-Z-9 Crib



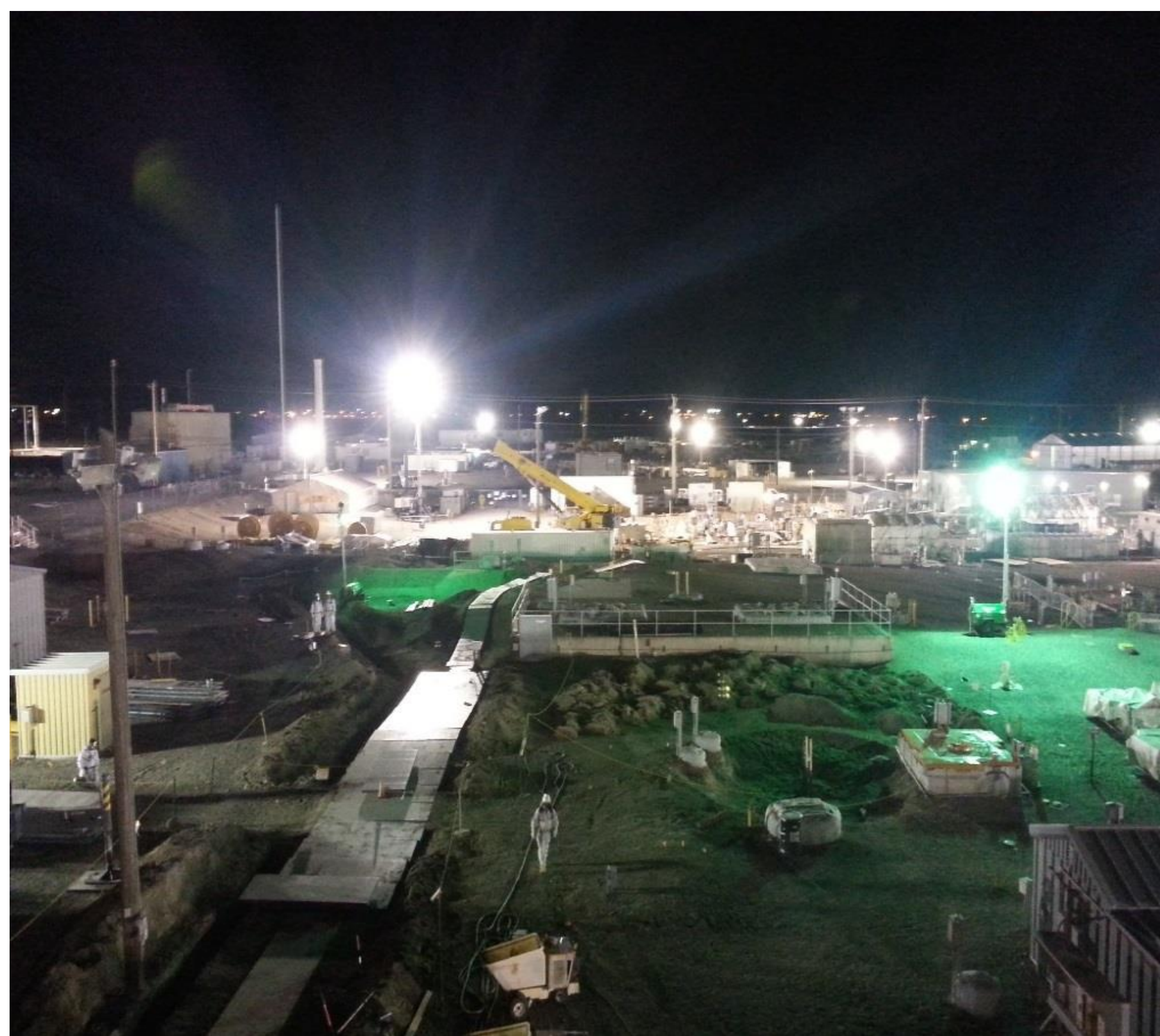
Excess equipment in Basin staged for removal during Basin deactivation



Mockup of garnet filter media removal system at MASF

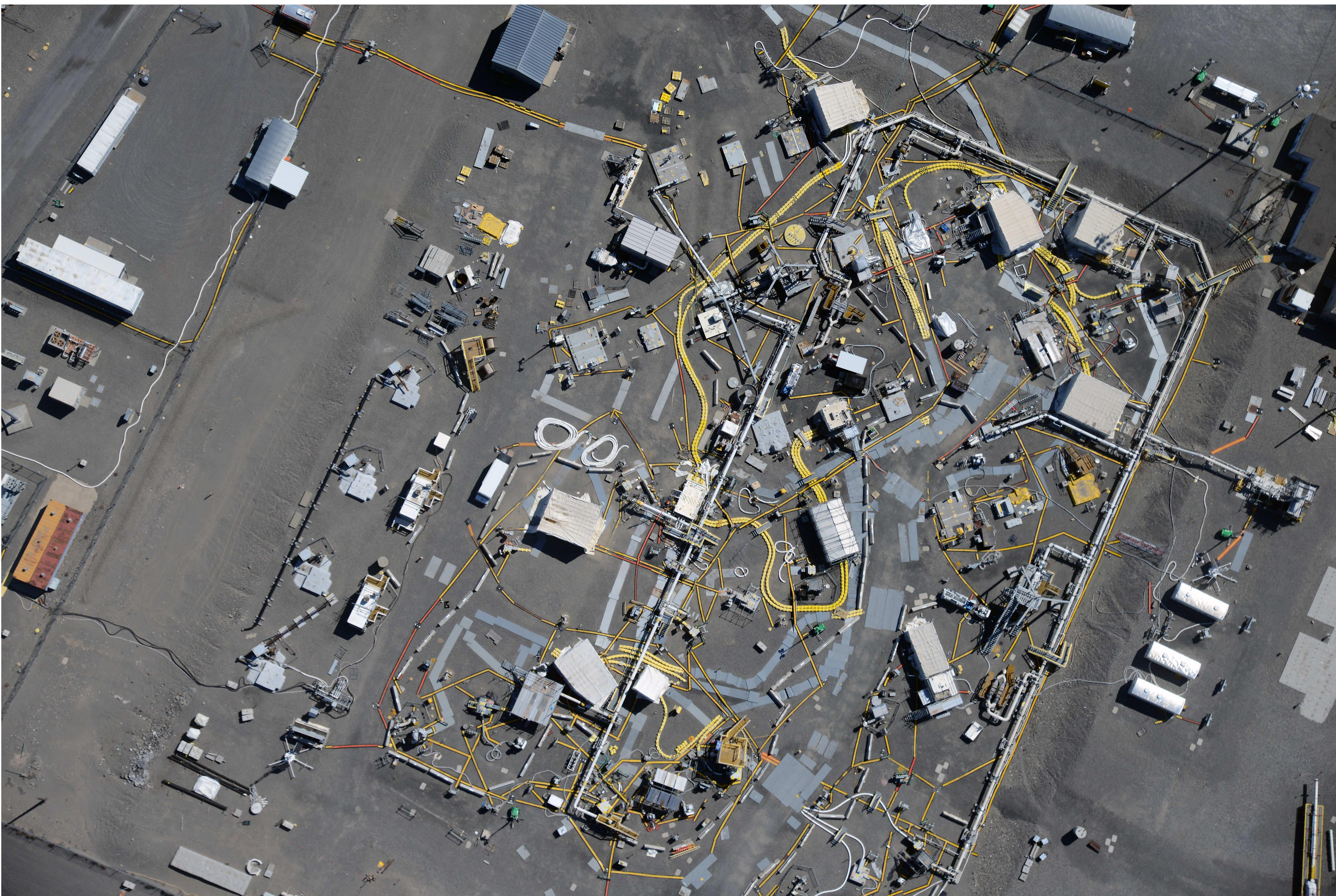


Gamma camera being used to characterize debris in the basin



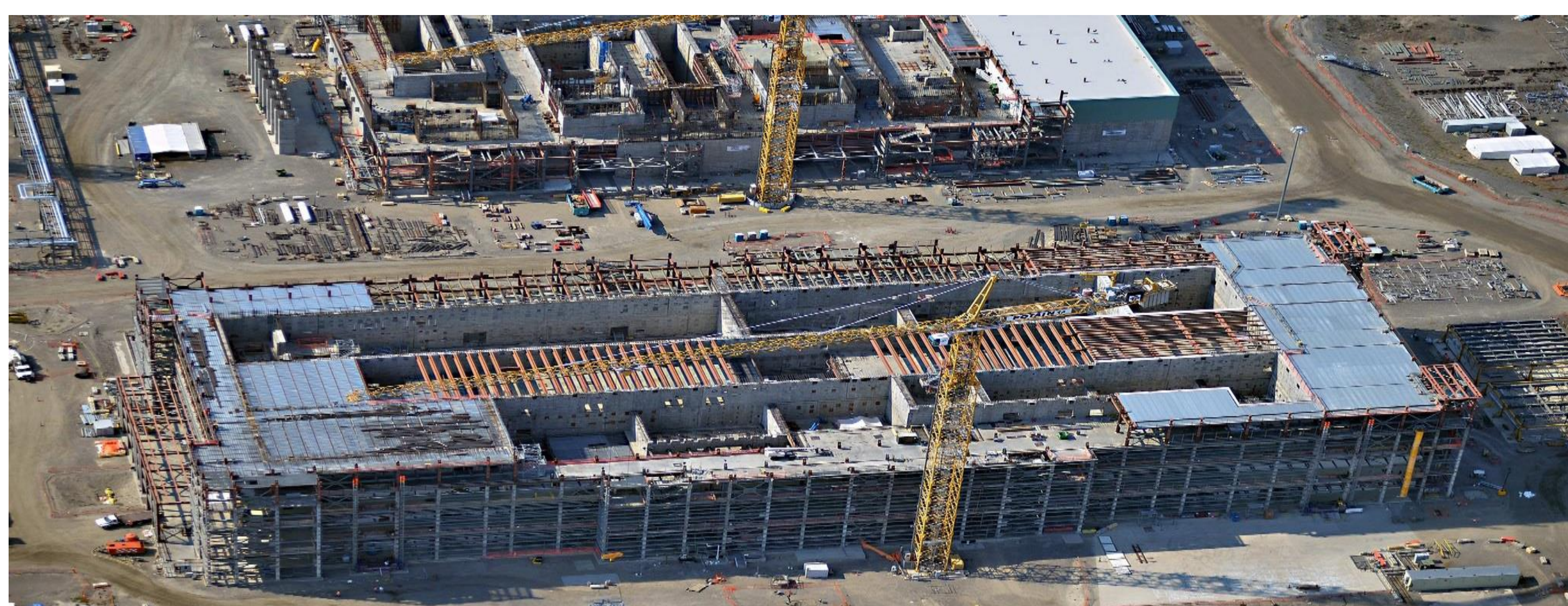
- Maintain Tank Farms in a safe manner
- Continue tank monitoring
- Employee protection

- Continue tank integrity activities
- Continue 242-A Evaporator facility repairs



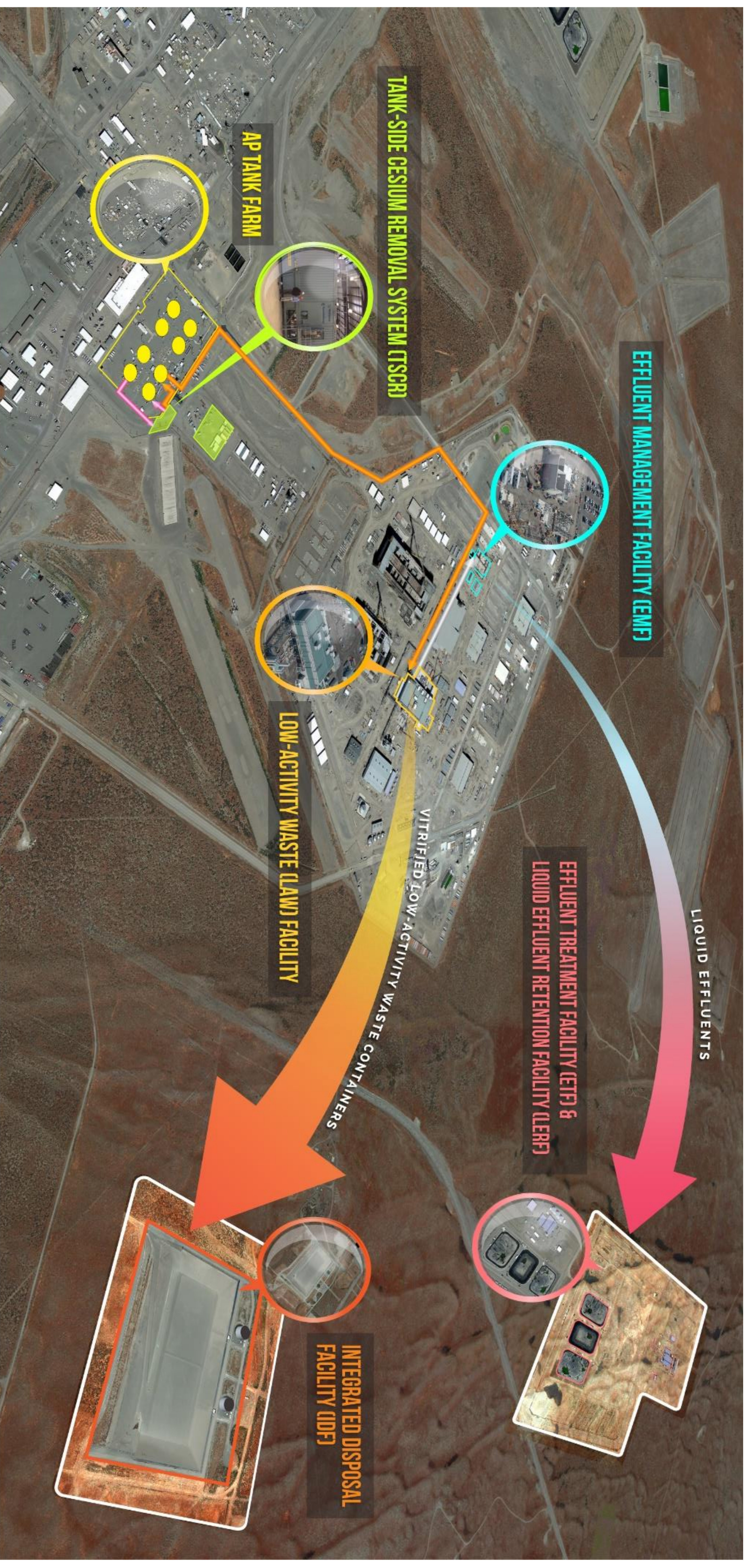
WTP Pretreatment/High-Level Waste Facilities

- HLW - Continue engineering design
- PT – Preventative maintenance activities to protect government assets



Direct-Feed Low-Activity Waste Overview

- Maturing DFLAW technical and organizational integration
- Culture transition progressing towards operations
- Executed ORP organization transition



Waste Treatment and Immobilization Plant - Direct-Feed Low-Activity Waste Facilities

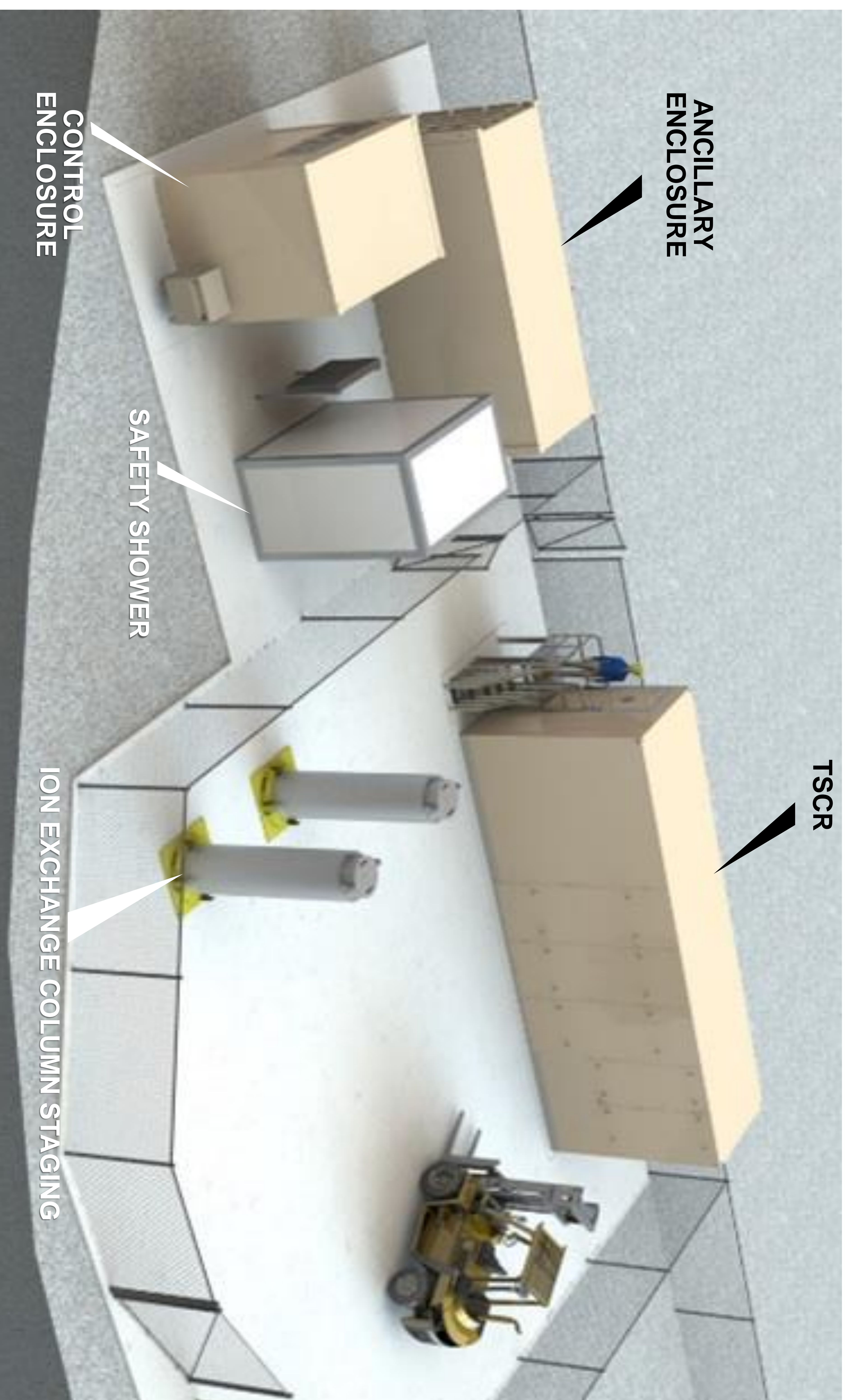
- **LAW** - Complete startup testing of process and building systems
- **BOF** - Complete startup testing for support facilities
- **EMF** - Initiate startup testing of Effluent Management Facility systems and components
- **LAB** - Complete startup testing for components and systems



- **Continue Tank Farm upgrades to support DFLAW activities**
- **Continue 222-S Laboratory operations and sustainment upgrades to support DFLAW**

Tank Farm – Direct-Feed Low-Activity Waste Conceptual Tank-Side Cesium Removal Layout

- TSCR System 90% design review initiated
- Developed integrated site-wide DFLAW schedule
- Complete TSCR Factory Acceptance Testing



Single-Shell Tank Retrievals

- A/AX Tank Farms preparing for retrievals
- Interim Surface barrier installed at SX Tank Farm
- Liquid Effluent Retention Facility (LERF) Basin 42 has a new cover after more than 20 years



A-AX Retrieval



SX Farm Barriers



Effluent Treatment Facility Basin Covers

Tank 241-SY-101 Field Deployment Concept

Key Milestones

- Test Bed Initiative (TBI) Final Design
- Receipt of Ion Exchange (IX) System and Equipment
- Installation of the TBI system
- Issue Declaration of Readiness
- Treatment of 2,000 gallons
- Waste incidental to reprocessing (WIR) Determination
- Ship Waste for off-site stabilization
- Dispose of solid Mixed Low-Level Waste at Waste Control Specialists

